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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------------|-------------------------|------------------------|
| 10/606,080 | 06/25/2003 | Walid Khairy Mohamed Ahmed | 17974 | 4268 |
| 26794 7590 12/27/2007 TYCO TECHNOLOGY RESOURCES 4550 NEW LINDEN HILL ROAD, SUITE 140 WILMINGTON, DE 19808-2952 | | | EXAMINER AHN, SAM K | |
| | | | ART UNIT 2611 | PAPER NUMBER |
| | | | MAIL DATE 12/27/2007 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/606,080

Applicant(s)

AHMED, WALID KHAIRY
MOHAMED

Examiner

Sam K. Ahn

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-48 is/are allowed.
- 6) ☒ Claim(s) 1-4, 10-13 and 16-19 is/are rejected.
- 7) ☒ Claim(s) 6-9, 14, 15 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 October 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see p.15-17, filed 10/09/07, with respect to claims 1-5, 11, 13, 16, 17 and 19 have been fully considered and are persuasive. The rejection of the claims has been withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 10, 13 and 16-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Meyer (US Pat. Number 5,861,773).

Regarding claim 1, Meyer discloses a method for electromagnetic processing of an input wave comprising the steps of: receiving a modified signal (the maximum of (I, Q)) derived from two or more signals (I-Q data) that represent said input wave when combined (see Fig. 4), regulating said modified signal using a plurality of segments and a digital signal containing at least one characteristic of said two or more signals (the output of the max. function is regulated to be I or Q, using plurality of segments of absolute value of I, absolute value of Q and digital signal k by comparing one of said at least two signals that represent said input wave when combined with at least another of said two signals of comparing I and Q).

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Regarding claim 2, Meyer further teaches wherein said two or more signals are in quadrature with each other (I and Q).

Regarding claim 3, Meyer further teaches wherein said characteristic used to regulate said modified signal is magnitude (magnitude determined through the absolute values, see absolute values I and Q in Fig.4).

Regarding claim 4, Black further teaches generating an output signal from said regulation as claimed (output of 28 in Fig.4).

Regarding claim 10, Meyer discloses said received modified signal contains only one of said two or more signals used to derive said modified signal (the $\max(I, Q) = I$ if $I > Q$ and the $\max(I, Q) = Q$ if $I \leq Q$).

Regarding claim 11, Meyer further teaches said modified signal is derived from a sign characteristic of one of said two signals as claimed (see sgn in element 26).

Regarding claim 12, Meyer further teaches wherein said modified signal is a carrier wave modulated by a characteristic of at least one of said two or more signals that

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represent said input wave when combined (I and Q modulated by QPSK, note c.1, I.20).

Regarding claim 13, Meyer further teaches the step of generating said modified signal ((the maximum of (I, Q) generated by 22 and 24).

Regarding claim 16, Meyer further teaches the step of generating said two or more signals that represent said input wave when combined (generating I and Q in order for the system in Fig 4 to be received).

Regarding claim 17, Meyer further teaches the step of processing said two or more signals that represent said input wave when combined (processing I and Q in elements 21, 22, 28 in Fig. 4).

Regarding claim 18, Meyer further teaches performing correction of an amplitude characteristic of a carrier wave used in said derivation of said modified signal (amplitude correction by element 28).

Regarding claim 19, Meyer further teaches wherein said electromagnetic processing of said input waver comprises RF modulation (note c.1, I.11-17 PSK, QAM).

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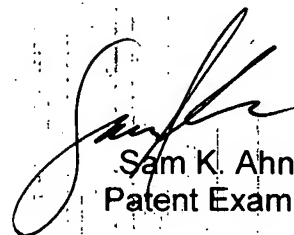
Allowable Subject Matter

3. Claims 21-48 are allowed.
4. Claims 6-9, 14, 15 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Ahn whose telephone number is (571) 272-3044. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Sam K. Ahn
Patent Examiner

12/25/07